Introduction

Movement exercises, as a tool for the treatment of mental diseases, have been used since historical times. Ritual dancing, as a form of a focused movement exercise, was a part of the primitive medical care which consisted of the preventive use of protective magical objects and rituals. Movement exercises, essentially an alternative form of treatment, persist in the present, and have become evidence-based.

The term "psychomotor" has originated in Germany. Wilhelm Griesinger, a co-founder of neuropsychiatry, used the term "psychomotor" for the first time in 1844 (Greisinger 1845 in Probst 2010). Thereafter this simple term has evolved into the whole scientific discipline. Nowadays the term "Psychomotor Therapy" uses among other things natural, non-performance oriented movement.

Medicine and psychology recognize the contribution of psychomotor therapy to our psychosomatic and mental state. Psychology acknowledges the expressive and emotional value of movement. It brings stimuli in the early stages of human life, and it also activates the mind of adult and elderly people.

For a long time different concepts were independently developed in separate countries. The reason for this lies in the fact that the psychiatric theory and practice is dependent on the historical context of each country and culture.

On the following pages we describe the history of the development of "psychomotor" therapy in some Europeans countries, namely Norway, Belgium, the Czech Republic and Russia. These countries have, from a socio-cultural and historical point of view a lot in common. Nevertheless they developed a slightly different view on psychomotor therapy.

It is important to know these historic backgrounds to be able to integrate and evolve the positive findings as well as to learn from dead-end streets.

The development of psychomotor therapy for patients with schizophrenia in Flanders (Belgium)

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Introduction

A change in the treatment of mental illness was initiated under the influence of Pinel (1745-1826), Tuke (1745-1813) and Greisinger (1817-1868). From then on, the repressive approach (i.e detention , chaining of patients) was replaced by a more moral treatment that consisted of daily rounds and provided patients with different daily activities. With his book "Aktive Krankenbehandlung of the Irrenanstalt," [Active treatment in asylum] Simon (1867-1947), a German psychiatrist who was inspired by the work of Griesinger, set an influencing trend for more active approaches to treat patients with mental illnesses. In contrast with the existing opinion that patients with mental health illnesses should be kept at rest and locked up in a residential treatment centre, this new approach aimed to address and to activate the healthy part of the personality of each patient. In the United States, Meyer (1866-1950) reported the positive effects of daily activities on health in his study of patients with mental illness. The use of movement activities for psychiatric patients was derived from the so-called active therapies (termed occupational therapy in some countries) that were organised in psychiatric hospitals (Probst & Bosscher, 2001).

In the Flemish part of Belgium, Simon's ideas were adopted by several psychiatrists. After the Second World War, these ideas gained increasing approval and became accepted as an essential part of treatment in mental health care services. However, the active focus of this type of treatment changed and evolved further. Initially, movement therapy for psychiatric patients was provided and further developed by teachers in physical education settings. The philosophy behind the initial attempts at movement therapy was "mens sana in corpore sano" ["a healthy mind in a healthy body"]. Gradually, the attention broadened from movement activities themselves to how people move in relation to their environment. At the end of the 1960s, the term "movement therapy" was replaced by "psychomotor therapy".

The main idea behind using the term "psychomotor therapy" was the increasing focus on the interactions between the body in motion and the psyche, especially from a behavioural perspective. Methods derived from more physical therapy and body oriented approaches, such as relaxation, sensory and body awareness, became an integral part of the therapy (Probst & Bosscher, 2001; Probst et al., 2010a).

Definition of psychomotor therapy in Belgium

Today, psychomotor therapy refers to a specialised field focusing on "personal intentional movements". This treatment approach is based on a holistic point of view and stimulates and integrates motor, cognitive and affective competences as inherent aspects of human behaviour, thereby enabling a person to act autonomously within his own psychosocial context. Psychomotor therapy uses both the "bodily experience" and "the body in motion" as main targets to optimise the functional, (psycho-) somatic, affective and emotional aspects of expression and behaviour. Through the implementation of both systematically planned evaluations and individually targeted interventions, the psychomotor therapist strives to broaden general action competencies and specific skills. The goal is to stimulate a positive self-image and personal well-being in balanced social relationships. Psychomotor therapy is used in both individual and group sessions, and in out- and in-patient settings. In Flemish psychiatric hospitals, psychomotor therapy is embedded in multidisciplinary treatment programmes for the treatment of psychoses and schizophrenia.

The evolution of psychomotor therapy for schizophrenia patients in Belgium

In 1962, Professor Denayer, the dean of the Faculty of Kinesiology and Rehabilitation Sciences at the University of Leuven, was the first to introduce courses about movement therapy in mental health within a physical therapy curriculum. At that time, this idea was very innovative. He invited Professor Pierloot and Van Coppenolle to take part in developing the theoretical courses and their practical translation into the field and also in developing the treatment of patients with schizophrenia.

Van Coppenolle's approach at the university psychiatric centre in Kortenberg (UPC, Kortenberg campus) was influenced by Shakow and Huston (Shakow & Huston, 1936), King (King, 1954), Salome-Finkelstein (Salome-Finkelstein, 1963) and L'Abbee (L'Abbee, 1974). Later, Depreitere further developed the psychomotor therapy for the treatment of schizophrenia. The approach at the UPC Kortenberg was adopted from the beginning as a standard type of care in various Flemish psychiatric hospitals (Probst & Bosscher, 2001). In due course, Vervaeke (Vervaeke, 1985), Van Wonterghem (Van Wonterghem, 1989) and Peeters (Peeters, 2004) added some ideas emphasising dance, fitness and body image, respectively. In 2005, Vancampfort, influenced by the ideas of Faulkner and Biddle (Faulkner & Biddle, 1999) developed a more specific evidence-based psychomotor therapy program.

Observation and evaluation in psychomotor therapy

The primary reasons for admission to a psychiatric hospital are not physical or motor deficits but major psychosocial impairments. Psychomotor therapy must, therefore, try to achieve relevant goals concerning both physical and psychological issues. Consequently, specific observation and evaluation instruments are necessary during psychomotor therapy.

Physical fitness: The Eurofit test battery (Oja and Tuxworth, 1995)

The Eurofit test includes the assessment of whole body balance (flamingo balance), speed of limb movement (plate tapping), flexibility (sit-and-reach; SAR), explosive strength (standing broad jump; SBJ), static strength (hand grip strength), abdominal muscular endurance (sit-ups) and running speed (shuttle run). The standard test methods have been described elsewhere (Oja & Tuxworth, 1995). The Eurofit test showed good reproducibility in patients with schizophrenia (Vancampfort et al., 2011d).

Exercise capacity: The six-minute walk test (6MWT)

The 6MWT must be performed according to the American Thoracic SThe 6MWT must be performed according to the American Thoracic Society Guidelines (American Thoracic Society Guidelines, 2002) in an indoor corridor with a minimum of external stimuli. For this test, two cones are placed 25 m apart in the indoor walkway. Participants should be instructed to walk back and forth around the cones for six minutes without running or jogging. Resting is allowed if necessary, but walking should be resumed as soon as the participants are able to do so. The protocol states that the testing should be interrupted if threatening symptoms appear. The total distance walked in 6 minutes can be recorded to the nearest decimetre. Standardised encouragements should be provided at recommended intervals. The 6MWT has been shown to be a reliable and feasible test to assess exercise capacity in patients with schizophrenia (Vancampfort et al., 2011c).

Brief Motor Scale (BMS)

The Brief Motor Scale (BMS) is a brief and non-invasive instrument for the clinical assessment of neurological soft signs (NSS) in patients with schizophrenia (Jahn et al., 2006).

a newly developed instrument. The scale consists of the two subscales, motor coordination and motor sequencing, each with five items (diadochokinesia, foot tapping, gaze impersistence, Oseretzky test and bilateral rhythm tapping for the former and finger-thumb-opposition, pronation–supination, fist-edge-palm, fist-ring and rhythm production for the latter). The scale and its subscales have good to excellent psychometric properties in terms of internal consistency and test-retest reliability and are able to detect group differences with high discriminative power.

Body Weight, Image and Self-Esteem (B-WISE ®)

The Body Weight, Image and Self-Esteem (B-WISE ®) questionnaire that is used to evaluate body weight, image and self-esteem in patients with schizophrenia was developed by Awad and Vorunganti (Awad & Vorunganti, 2004). This 12-item instrument is useful for measuring the psychosocial consequences of weight changes associated with psychotropic drug use, and it also monitors the impact of various intervention programs aimed at minimising or preventing weight gain. The initial reliability and validity results for the use of this instrument in a group of people living with schizophrenia were acceptable. However, until more studies are conducted that take psychometric properties into account, the questionnaire should be used with caution (Probst et al., 2010b).

The Physical Self-Perception Profile (PSPP; Fox, 1990)

The PSPP can be used to investigate physical self-perception and consists of five sub-domain scales, namely, (1) perceived sports competence, (2) perceived physical fitness, (3) perceived body attractiveness, (4) perceived physical strength and (5) the more global physical self-worth. Each scale consists of six items presented on a four-point structured alternative format. The results include responses from one to four per item and from six to 24 per scale, with higher scores representing more positive perceptions. The PSPP can be used as a screening instrument for patients with schizophrenia to find high and low levels of perceived sport competence and perceived physical fitness (Vancampfort et al., 2011e).

Movement Assessment of Van Roozendaal (1969)

A specific instrument is required to point out the psychological objectives of psychomotor therapy for the treatment of schizophrenia. One of the first individualised psychomotor observation instruments was reported in the Movement Assessment of Van Roozendaal (Van Roozendaal, 1969, 1969). The basic principle of this observation instrument was the comparison between the actual level of movement performed and the level of motion that the patient would normally be able to achieve. The actual level of movement performed was deduced form direct observation in different movement activities. The factors affecting the quality of movement were: adaptation, coordination, reaction, balance, movement harmony, movement insight, movement intelligence, movement intensity,

motivation for movement activities, techniques, game strategy, movement perception and social play behaviour. The level of motion that would be expected was based on each individual's previous experiences with movement, age, profession and habits. The comparison between the quality of the current observed way of motion with the expected level of activity can be expressed as a motor percentage. A result of 100 indicates that the quality of motion met the expected level of activity. A score below 85 indicated a motor deterioration, i.e., the quality of the movement did not meet the level that one might assume that the patient is capable of based on each individual's recollection of their own past level of activity.

Leuven observation scales for objectives in psychomotor therapy (LOVIPT)

In the 1980s, a new observation instrument (Leuven observation scales for objectives in psychomotor therapy; LOVIPT) was developed by Simons (Simons, 1987). This instrument is based on observation-goal therapy. He developed these observation scales after taking an inventory of the objectives for psychomotor therapy described in the literature over a period of 20 years (Simons, 1987). These inventoried goals were classified through cluster analysis. The LOVIPT consists of nine clusters: emotional relations, self-confidence activity, relaxation, movement control, focusing attention on the situation, movement expressivity, verbal communication and social regulation ability. These clusters offer direct and relevant information and an indication for psychomotor therapy because they were derived from psychological therapeutic objectives and are closely related to the symptoms that initially necessitated admission to a psychiatric centre (Van Coppenolle et al., 1989).

Box: Medication and psychomotor therapy

The influence of medication on movement behaviour is well-described and is an important issue in physical activity approaches. The discovery of chlorpromazine's psychoactive effects in 1952 led to a greatly reduced use of restraint, seclusion and sedation in the management of agitated patients. Neuroleptics are drugs that reduce psychotic symptoms such as hallucinations, delusions, paranoia and confusion. However, these drugs also cause a wide range of unpleasant side effects. Today, two categories of antipsychotic (AP) drugs are available. The first class of AP medication is the first generation of antipsychotics (fga), such as Largactil, Haldol, Etumine, Orap, Dipiperon, Clopixol, Fluanxol and Impromen with side effects on muscles (extra pyramidal syndrome, trembling, spasms, stiffness/rigidity, lack of exercise, involuntary movements or an urge to move) and problems with attention and concentration. The more recent drugs, or the atypical neuroleptics (second generation of antipsychotics, sga), such as Abilify, Leponex, Risperdal, Serdolect, Seroquel, Solian, Zeldox and Zyprexa, show fewer motor side effects but can instead lead to other side effects such as weight gain, deviations of sugar and lipid values, sexual problems and blood and heart disorders. Today, there is accumulating evidence that physical activity has a positive influence on antipsychotic drug-induced side effects.

The content of psychomotor therapy for schizophrenia

In psychomotor therapy, the general aim is to increase the level of "activity", "attention", "initiative", "communication" and "social contact" in these patients. To achieve these objectives, the psychomotor therapist focuses on both skill training and behavioural structuration by offering a variety of movement activities. Skill training covers the learning, development, training and practicing of physical, psychomotor, social and communication skills. Maintaining a good level of physical condition (with a focus on strength, agility, endurance and speed) is a basic goal. The psychomotor skills (structuration, balance, coordination, body awareness and temporal and spatial orientation) and the social skills, with an emphasis on relational and recreational skills, dealing with fair play, cooperation and friendship are emphasised.

Finally, the basic rules of verbal and nonverbal communication are also practised. In addition to skill training, the emphasis lies on structuring and experimenting with coping strategies, behaviour, thoughts, perceptions and emotions.

Movement situations that are representative of real-life situations are provided to give the patient a good structure and the opportunity to create a realistic image of his own capabilities and boundaries. This task requires discipline, responsibility and the perseverance of the patient. In the first stage of therapy, individualised physical activities are offered. At a later stage, more group and interactive activities are proposed (Probst, 2001).

In recent years, it has become clear that many patients with schizophrenia continue to suffer from persistent symptoms and relapses, particularly when they fail to adhere to prescribed medications. This fact highlights the need for multi-modal care that includes psychomotor therapy as an adjunct to antipsychotic medications to help alleviate symptoms and to improve treatment adherence, functional outcome and health-related quality of life in these individuals (van Os & Kapur, 2009). Based on recent research, the above-mentioned approach was adapted for a more specific, evidence-based psychomotor program that may consist of: (a) a stress reduction programme, (b) a movement activation programme and (c) a psychosocial therapy programme (Vancampfort et al., 2010a).

A stress reduction programme should take a central role in the multidisciplinary treatment of schizophrenia, as a worsening of schizophrenic symptoms is related to stress while, at the same time, patients often lack the abilities to cope with feelings of distress and tension. Different modules can be followed within a stress reduction programme: (1) progressive muscle relaxation, (2) yoga/tai chi therapy, (3) aqua therapy and (4) stress management training. The first three modules have been shown to provide patients with self-maintenance coping skills that help reduce psychological distress and improve subjective well-being (Vancampfort et al., 2011a, b).

In movement activation programme (e.g., "start to walk" sessions, psycho-education sessions about lifestyle, physical activity and fitness sessions) metabolic abnormalities as a consequence of atypical antipsychotics (see Box on medication) and an observed sedentary lifestyle should be two topics of special interest.

Indeed, physical activities seem to reduce antipsychotic-induced motor side-effects and improve cognitive functioning (Vancampfort et al., 2012a).

Intense research in the last decade has indicated that metabolic and cardiovascular diseases (CVD) have become a major concern in patients with schizophrenia (Mitchell et al., 2012). Patients with schizophrenia are 1.5- to 2-times more likely to be overweight, have a two-fold increased risk for diabetes and hypertension and show a five-times higher prevalence of dyslipidaemia compared with the general population (De Hert et al., 2009). Because physical inactivity and reduced physical fitness are two of the major risk factors for CVD (Vancampfort et al., 2010a), psychomotor therapists are also increasingly focusing on exercise counselling following the American College of Sports Medicine Guidelines (American College of Sports Medicine, 2009).

Group participation helps the patient experiencing the group processes of cooperation, compromise, confrontation and conformity and is one of the main goals of a psychosocial therapy programme.

The future of psychomotor therapy for schizophrenia

Residential care (also termed "institutional care" or "inpatient care") is widespread in Flanders (Belgium), and the residential treatment programs are of high quality and well elaborated. New concerns regarding long-term care, new treatment options from humanitarian and moral perspectives, the outlined advantages of home care in the international literature and the idea that home care will lead to a more cost-effective care suggest that community care is the best option for the future. Care in the community (also called "Community Care"; or more specifically "Function Assertive Community Treatment") is the new Flemish policy of deinstitutionalisation that aims to treat and care for persons with severe (and enduring) mental health problems such as schizophrenia in their homes or in sheltered homes rather than in institutions. This evolution means that the psychomotor therapy programmes in residential care must be adapted for the community care setting. The challenge will be to motivate, to support and to guide patients with schizophrenia for individual or group exercise activities.

The goal is to keep patients physically active through these activities. Outside of a residential care setting, many of these patients become isolated and would not receive treatment from psychomotor therapists. The ultimate goal of psychomotor therapy should be to improve functional outcomes and increase the quality of life. It is not yet clear if psychomotor therapy will achieve this goal and have a future role within the evolving community care of these patients. More experience with psychomotor therapy in a community care setting is necessary, but it is possible that implementing a "buddy system" could be helpful in ensuring success."

A SHORT HISTORY OF PHYSICAL ACTIVITY IN NORWEGIAN PSYCHIATRY

Marit Sørensen

DEVELOPMENT WITHIN THE PSYCHIATRIC HOSPITALS

THE OLD TIMES

The first psychiatric hospital in Norway, Gaustad hospital, was established in 1855. Up until the1970'ies there was no systematic physical exercise for the patients. However, there was quite a lot of physical activation through farm work and other types of outdoor activity. The first psychiatric hospitals were built in conjunction with farms, often some distance outside the nearest towns (Retterstøl, 1998). Patients in the old days often came from rural parts of the country and were familiar with farm work, and were therefore offered different types of farm work, also with animals. This was a good and positive therapeutical element, because no real systematic therapy existed at that time (Retterstøl, 1998). Several of our old psychiatric hospitals therefore have stables for horses and cattle, some of them have now been rehabilitated and are in use today, for instance for riding therapy.

The mid 1950'ies represented a great shift in the history of psychiatry because of the introduction of psychopharmaca; neuroleptica and antidepressiva. Those who experienced this change, tell of a dramatic change of atmosphere in the hospitals: " I can still remember the great impression it made on a new and inexperienced assisting physician to get the responsibility at a ward where you could, from an office in the center of the ward, oversee around 30 patients in beds close to another. Some were in belts, uneasy, crying, roaring, filthy and self-stimulating. A great deal of resignation was experienced. Those patients who did not need restriction, were often found sitting along the walls, rocking to and fro. They seemed way off any contact possibilities. A couple of times a day they were sent out into an area for some fresh air. There was at the time hardly any basis for physical exercise." (Retterstøl, 1998, p.11). After the new medicines were introduced the wards became calmer and it was easier to make contact with and talk with the patients.